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## Cotton Fiber and Processing Test Results

CROP of

1974



Agricultural Marketing Service  
U.S. DEPARTMENT OF AGRICULTURE  
Memphis, Tenn. 38122 November 8, 1974

These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.<sup>1/</sup> These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

<sup>1/</sup> Summary of Cotton Fiber and Processing Test Results, Crop of 1973, USDA, AMS, Cotton Division, May 1974.



## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1974

### Discussion of Test Results

Cotton Division laboratories of the Agricultural Marketing Service, USDA, report average fiber properties for all medium staple samples tested through November 1 are finer than samples tested through this period a year ago. Picker and card waste is higher than last season. Yarns spun from these samples show weaker yarn strength and lower appearance grades. Yarn imperfections are fewer than a year ago.

No additional short staple samples were received from the Southwest.

Southeast medium staple samples tested show approximately the same fiber properties as a year ago at this time. Shirley Analyzer nonlint content is less than a year ago. Yarns spun from these samples show a weaker yarn strength. Appearance grades are higher than a year ago. Yarn imperfections are fewer. Average spinning potential yarn number is lower than last season.

Medium staple samples tested from the South Central are less uniform and finer than a year ago. Fiber strength is stronger at both zero gage and 1/8" gage tests. Picker and card waste is higher than last season. Yarn strength is slightly weaker and appearance grades lower. Yarn imperfections are fewer than a year ago.

Medium staple samples tested from the Southwest show about the same fiber properties as a year ago. However, fiber strength is higher at zero gage tests than a year ago. Yarns spun from these samples show lower appearance grades. Yarn imperfections are fewer.

Medium staple samples tested from the West show cottons to be coarser and weaker at both zero gage and 1/8" gage tests. Picker and card waste is higher than last season at this time. Yarn strength is considerably weaker than last season. Yarn appearance grades are higher. Yarn imperfections are fewer.

Long staple samples tested from the Southeast to date are longer, finer and weaker at 1/8" gage strength tests. Comber waste is higher than last season. Yarns spun from these samples show lower appearance grades for both carded and combed yarns. Yarn imperfections were fewer for combed yarns. Average spinning potential yarn number is lower than last season.

South Central long staple samples tested to date show longer, finer and weaker fibers at zero gage test than last season at this time. Shirley Analyzer nonlint content is lower. Comber waste is higher than last season. Yarns spun from these samples show yarn strength to be weaker for both carded and combed yarns. Yarn appearance grades were lower for carded and combed yarns. Average spinning potential yarn number is lower than a year ago.

Only one long staple lot was received from the West.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through November 1, 1974 1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality		Spin. Potent.		
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance		Imperf- ections	
				Inches			Pct.	Rdg.			Mpsi		G/tex
		No.	22s		Carded	Yarn			Yarn No.				
Short Staple: Southwest	13	1.00	46	4.5	84	21	4.0	6.5	98	112	22	45	
	9	.96	44	4.0	88	21	3.5	6.7	90	104	17	41	
	15	1.09	46	4.6	83	23	3.6	5.8	107	106	25	66	
	13	1.09	45	4.5	82	23	3.1	5.8	99	111	17	63	
Medium Staple: Southeast	45	1.10	46	4.7	84	22	2.8	5.2	106	113	20	64	
	34	1.11	44	4.3	86	23	3.0	6.0	102	109	16	64	
	25	1.08	45	4.4	81	22	2.6	5.4	100	99	25	60	
	29	1.07	44	4.3	84	22	2.8	5.8	101	92	19	60	
South Central	8	1.12	46	4.5	94	26	2.1	4.7	122	109	23	69	
	5	1.12	45	4.8	87	23	2.1	5.4	105	114	13	67	
	93	1.10	46	4.6	84	23	2.8	5.3	106	108	23	64	
	81	1.10	45	4.4	85	23	2.9	5.9	101	103	17	63	
Southwest	25	1.08	45	4.4	81	22	2.6	5.4	100	99	25	60	
	29	1.07	44	4.3	84	22	2.8	5.8	101	92	19	60	
	8	1.12	46	4.5	94	26	2.1	4.7	122	109	23	69	
	5	1.12	45	4.8	87	23	2.1	5.4	105	114	13	67	
U.S. Average	93	1.10	46	4.6	84	23	2.8	5.3	106	108	23	64	
	81	1.10	45	4.4	85	23	2.9	5.9	101	103	17	63	
	Significant dif- ference	2/	0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3

1/ Based on a limited number of samples of modal quality  
 2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States  
through November 1, 1974  
1/ (Continued)

Staple group, Area, and Crop year	Lots	Fiber Test Results					Processing Test Results												SPY
		Length		Mike	Strength		SA Non- lint	P&C Waste	Comber Waste	Yarn Quality					Imprfctns				
		Span	Unif		Zero	1/8" gage				Pct.	Lbs. carded	Lbs. combed	Indx carded	Indx combed	No. card	No. comb	No.		
22s Carded & Combed Yarn																			
No.	In.	Pct.	Rdg.	Mpsi	G/tx	Pct.	Pct.	Pct.	Lbs.	Lbs.	Indx	Indx	No.	No.	No.	No.	No.		
Long Staple:																			
Southeast:																			
1973	4	1.13	45	4.7	82	23	3.8	8.4	17.2	106	120	125	130	16	18	72			
1974	4	1.16	44	4.3	82	22	3.4	8.1	17.9	105	122	108	115	16	8	63			
South Central:																			
1973	2	1.14	45	4.6	88	24	3.8	8.0	17.0	112	130	125	130	20	8	66			
1974	2	1.16	45	4.4	86	24	3.2	8.2	18.6	103	122	100	120	20	8	63			
Significant Difference 2/																			
		0.02	2	0.2	2	1	0.5	0.5	0.5	4(22s)	5	5	5	2	2	3			

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1974

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Stple	Name & Code	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Poten- tial
				2.5% span	Unif.		Zero Gage	1/8" Gage		Pct	Mpsi	G/tex	Pct		No	Gra	Yel	22s or 27 tx	Lbs	Pct	22s or 27 tx	50s or 12 tx	
SOUTHEAST AREA																							
ALABAMA																							
1	SLM	41	34	1.09	45	4.6	80	23	7.5	2.6	1	3	5.2	98 PERCENT	99	31	6.3	4.3	110	90	21	14	62
HARPERSVILLE																							
1	SLM	41	34	1.10	45	4.4	78	22	7.9	2.3	2	3	5.0	90 PERCENT	98	31	6.4	4.3	120	90	11	8	63
TUSKEGEE																							
1	SLM	41	34	1.09	44	4.2	83	23	7.2	2.5	2	3	5.3	95 PERCENT	106	34	6.4	4.4	120	90	10	7	68
TYLER																							
1	SLM	41	35	1.15	45	4.7	86	23	6.3	2.5	3	3	5.0	80 PERCENT	107	37	6.1	4.5	130	90	7	7	72
GEORGIA																							
ALLETOWN																							
2	LM	51	34	1.07	43	4.7	78	21	6.3	5.6	4	3	8.8	95 PERCENT	78	22	5.3	3.5	110	90	17	13	48
BOSTWICK																							
1	SLM LT SP	42	34	1.05	46	4.8	82	21	6.8	3.9	3	4	6.4	100 PERCENT	96	30	5.8	4.2	120	90	17	14	60
OGLETHORPE																							
1	SLM	41	34	1.09	43	4.5	80	21	7.6	2.6	2	3	6.0	98 PERCENT	99	32	6.4	4.5	120	90	13	10	63
NORTH CAROLINA																							
LAURINBURG																							
1	SLM	41	35	1.12	45	4.2	83	23	6.6	3.6	2	3	6.9	100 PERCENT	108	36	6.4	4.4	100	80	23	16	71
SOUTH CAROLINA																							
CALHOUN FALLS																							
1	SLM	41	35	1.11	45	4.1	82	23	6.1	3.9	2	2	5.4	100 PERCENT	108	34	6.2	4.3	110	80	18	14	68
ST MATTHEWS																							
1	SLM	41	35	1.13	45	4.5	79	22	6.1	3.6	2	3	6.0	98 PERCENT	97	30	6.2	4.1	90	80	29	23	60
SOUTH CENTRAL AREA																							
ARKANSAS																							
ALTHERMER																							
1	SLM	41	36	1.17	45	4.5	87	24	7.2	2.7	2	2	5.4	100 PERCENT	111	37	6.6	4.7	110	80	16	13	74



Table 2 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1974--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade & Code		Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non-Lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imperf'ns		Spin. Poten- tial
	Name	Code		2.5% span	Unif.		Zero Gage	1/8" Gage		Pct	Mpsi	G/tex	Pct		Lint	Gra	Yel	22s or 27 tx	50s or 12 tx	Pct	22s or 27 tx	50s or 12 tx	
SOUTHEAST AREA--(Continued)																							
ARKANSAS--(Continued)																							
DUMAS																							
1 SLM	41	35	1.11	45	4.6	86	22	5.6	2.8	2	3	5.7	101	31	5.6	4.0	120	90	11	9	62		
STONEVILLE 213																							
100 PERCENT																							
EUDORA																							
1 SLM	41	35	1.11	44	4.2	89	23	7.3	2.5	1	2	5.6	106	35	6.1	4.4	120	90	11	11	68		
DELTAPINE 16																							
100 PERCENT																							
HUGHES																							
1 SLM	41	35	1.12	45	4.3	90	24	6.6	3.1	2	3	5.8	103	31	5.7	3.8	120	90	14	10	65		
STONEVILLE 213																							
100 PERCENT																							
LEACHVILLE																							
1 SLM	41	35	1.12	46	4.2	91	23	6.0	2.4	1	3	5.9	106	33	5.8	4.2	100	70	20	17	67		
BRYCOT #4																							
100 PERCENT																							
LEACHVILLE																							
1 SLM	41	36	1.15	45	4.4	85	23	7.2	3.5	1	2	5.7	108	35	6.7	4.5	90	80	20	16	66		
STONEVILLE 213																							
100 PERCENT																							
MARIANNA																							
1 SLM	41	35	1.09	45	4.8	87	23	6.7	2.9	2	3	5.5	97	30	5.9	4.3	110	80	15	10	56		
STONEVILLE 213																							
100 PERCENT																							
OSCEOLA																							
1 SLM	41	35	1.13	42	3.7	92	24	5.6	3.5	1	3	6.3	100	28	5.7	3.7	80	60	26	25	61		
STONEVILLE 7A																							
100 PERCENT																							
WILSON																							
1 SLM	41	36	1.17	45	4.1	86	24	7.4	2.7	2	3	5.9	115	39	6.8	4.8	110	80	15	11	79		
DELTAPINE 16																							
100 PERCENT																							
WYNNE																							
1 SLM	41	35	1.14	45	4.4	85	24	8.9	3.6	1	2	5.9	112	38	7.4	5.2	110	90	20	13	69		
DELTAPINE 16																							
100 PERCENT																							
LOUISIANA																							
2 LM	51	34	1.08	45	4.5	83	22	6.6	3.5	4	2	6.3	87	26	5.3	3.5	110	90	10	9	57		
DELTAPINE 45A																							
90 PERCENT																							
LAKE PROVIDENCE																							
1 SLM	41	35	1.15	43	4.3	83	23	7.6	2.8	1	2	5.1	109	37	7.0	4.9	110	90	11	9	76		
DELTAPINE 16																							
100 PERCENT																							
LAKE PROVIDENCE																							
1 SLM	41	34	1.10	45	4.6	87	22	6.2	2.9	3	3	5.9	92	25	5.4	3.3	110	70	23	17	55		
STONEVILLE 213																							
100 PERCENT																							
MONROE																							
1 LM	51	34	1.15	44	4.2	81	23	7.2	2.3	4	2	6.3	90	29	5.6	4.0	110	80	15	13	70		
DELTAPINE 16																							
100 PERCENT																							
SHREVEPORT																							
1 SLM	41	35	1.14	43	4.7	82	23	7.1	2.1	2	3	5.2	98	32	6.1	4.2	130	90	9	7	65		
DELTAPINE 16																							
100 PERCENT																							



Table 2 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1974--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Poten- tial		
				2.5% span	In		Zero Gage	Mpsi			Pct	Raw Stock		Yel	No	Lbs	Lbs	Pct	22s or 27 tx	50s or 12 tx	22s or 27 tx		50s or 12 tx	22s or 27 tx
SOUTH CENTRAL AREA--(Continued)																								
MISSOURI																								
PORTAGEVILLE																								
1	SLM	41	35	1.14	45	4.4	82	24	7.0	2.3	2	3	5.9	94 PERCENT		106	35	6.7	4.5	120	80	15	11	67
SENATH																								
1	SLM	41	35	1.10	44	3.6	81	23	6.7	2.6	1	2	5.3	100 PERCENT		107	35	7.0	4.7	100	80	21	17	69
SENATH																								
1	SLM	41	35	1.13	44	4.0	82	22	7.9	1.8	1	3	5.5	80 PERCENT		111	36	7.2	5.0	80	60	24	17	75
TENNESSEE																								
RIDGELY																								
1	SLM	41	35	1.12	46	4.7	86	23	6.3	2.5	2	3	5.5	75 PERCENT		106	34	6.5	4.5	100	70	25	20	64
SOUTHWEST AREA																								
CENTRAL TEXAS																								
NAVASOTA																								
2	SLM LT SP	42	35	1.10	44	4.8	83	22	7.4	2.7	3	2	5.9	100 PERCENT		92	30	6.0	4.1	110	80	9	7	57
3	SLM LT SP	42	35	1.11	42	4.2	81	22	7.6	2.7	3	2	6.0			89	27	5.8	4.0	90	80	14	13	55
WEST AREA																								
ARIZONA																								
BUCKEYE																								
1	MID LT SP	32	35	1.11	48	5.4	91	24	7.0	2.2	2	3	5.4	95 PERCENT		104	33	6.1	4.1	130	90	11	10	61
CASA GRANDE																								
1	MID	31	35	1.13	44	5.0	84	24	7.1	1.9	1	3	5.6	75 PERCENT		108	36	6.4	4.5	120	90	7	6	65
MARICOPA																								
1	SLM	41	35	1.13	45	5.4	90	23	6.9	2.0	2	2	5.1	100 PERCENT		102	34	6.3	4.2	120	90	16	10	71
PICACHO																								
1	MID LT SP	32	35	1.12	43	4.0	88	22	6.5	2.2	1	3	5.4	88 PERCENT		111	38	6.2	4.4	120	80	10	8	70
SOMERTON																								
1	MID	31	35	1.11	44	4.1	82	23	6.7	2.4	1	3	5.6	92 PERCENT		101	33	5.9	4.3	80	60	20	17	68

Table 3 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1974

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Comber Waste	Strength		Elongation		Appearance Index		Imperfect's		Spin. Poten- tial	
				2.5% span	Unif.		Pct	In			Zero	1/8" Gage		Pct	G/tex	No	Yel	22s or 27 tx	50s or 12 tx	Pct	22s or 27 tx		50s or 12 tx
32s																							
AREA																							
SOUTHEAST																							
GEORGIA																							
COMER																							
1	SLM	41	35	1.18	43	4.3	83	23	COKER 310	7.4	3.1	2	3	7.9	109	37	6.5	4.8	100	80	15	12	63
													*	16.8	126	45	6.8	5.2	120	90	6	5	
MADISON																							
1	SLM LT SP	42	35	1.15	43	4.4	83	22	COKER 310	7.0	4.0	2	3	8.4	104	34	5.8	4.4	100	80	18	12	63
													*	17.7	122	43	6.5	5.0	120	90	6	4	
SOUTH CAROLINA																							
HARTSVILLE																							
1	SLM	41	36	1.14	43	4.2	80	22	COKER 310	6.8	3.1	3	3	7.8	103	33	6.1	4.4	120	80	13	13	65
													*	19.3	120	42	6.4	4.9	110	90	7	5	
SOUTH CENTRAL																							
TENNESSEE																							
TRENTON																							
1	SLM	41	35	1.14	44	4.1	83	24	COKER 310	7.6	3.2	1	3	8.4	106	35	6.1	4.5	100	70	22	16	65
													*	17.6	126	45	6.6	5.0	120	100	8	7	
WEST																							
AREA																							
NEW MEXICO																							
BERINO																							
1	SLM	41	36	1.16	47	3.9	90	26	ACALA 1517 70	6.7	2.2	1	3	7.0	130	48	6.1	4.8	100	70	19	14	91
													*	15.8	145	54	6.5	5.2	100	90	7	6	

\* Comber Waste and Combed Yarn Data